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**Department of the Navy  
FY10 Safety and Occupational Health (SOH)  
In-Progress Review  
Presented to  
Acting Assistant Deputy Under Secretary of  
Defense  
(Installations and Environment)**

**Mr. Tony Militello, P.E.  
Acting Director, Occupational Safety and Health  
Office of the Deputy Assistant Secretary of the Navy (Safety)  
28 June 2011**



# Agenda

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- DoN Safety Program Overview
- Attachment 1 – Requested Briefing Subjects
- Safety Success Stories
- Attachment 2 – Backup Data



# DoN Safety Program Overview

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- SECNAV's Safety Vision guides DoN Safety program
- Annual Safety Summit sets goals and objectives
  - Safety Summit participants include:
    - DASN (Safety) and staff
    - Marine Corps Headquarters Safety Division,
    - Naval Safety Center, including OPNAV N09FB
- Navy Executive Safety Board and Marine Corps Warrior Preservation Board provide governance for program execution



# DoN Safety Program Overview



- DoN Safety Community (~2400 personnel)
  - Navy Safety Professionals
  - Marine Corps Safety Professionals
  - Industrial Hygiene Professionals (IHOs and IHs)
  - Occupational Health Physicians and Nurses
  - Aviation Safety Officers
  - Collateral Duty Safety Officers



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# **Attachment 1**

## **Requested Briefing Subjects**



# Risk Assessment

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## Workplace Assessment Frequency

### ➤ Navy Policy

- **OPNAVINST 5100.23G, *Safety and Occupational Health (SOH) Ashore Program Manual, Section 0903 a.***, "Safety personnel shall inspect all workplaces at least annually. They shall inspect high hazard areas more frequently based upon an assessment of the potential for injuries, occupational illness or damage to Navy property."
- **OPNAVINST 5100.19E, *Afloat SOH Program Manual, Section A0302.***, "The safety officer shall ensure that all workspaces are inspected at least annually, for safety. They shall inspect high hazard areas more frequently based upon an assessment of the potential for injuries, occupational illness or damage to Navy property."

### ➤ Process Audit in FY11 by Naval Audit Service

- Corrective actions for identified hazards are mitigated and tracked to closure
- Issues include assessment frequency and inclusion of all Navy Commands
- Recordkeeping practices makes reporting of completed workplace assessments difficult
- Process recommendations target improvements for identified issues
- Final Audit Report scheduled for Fall 2011



# Risk Assessment



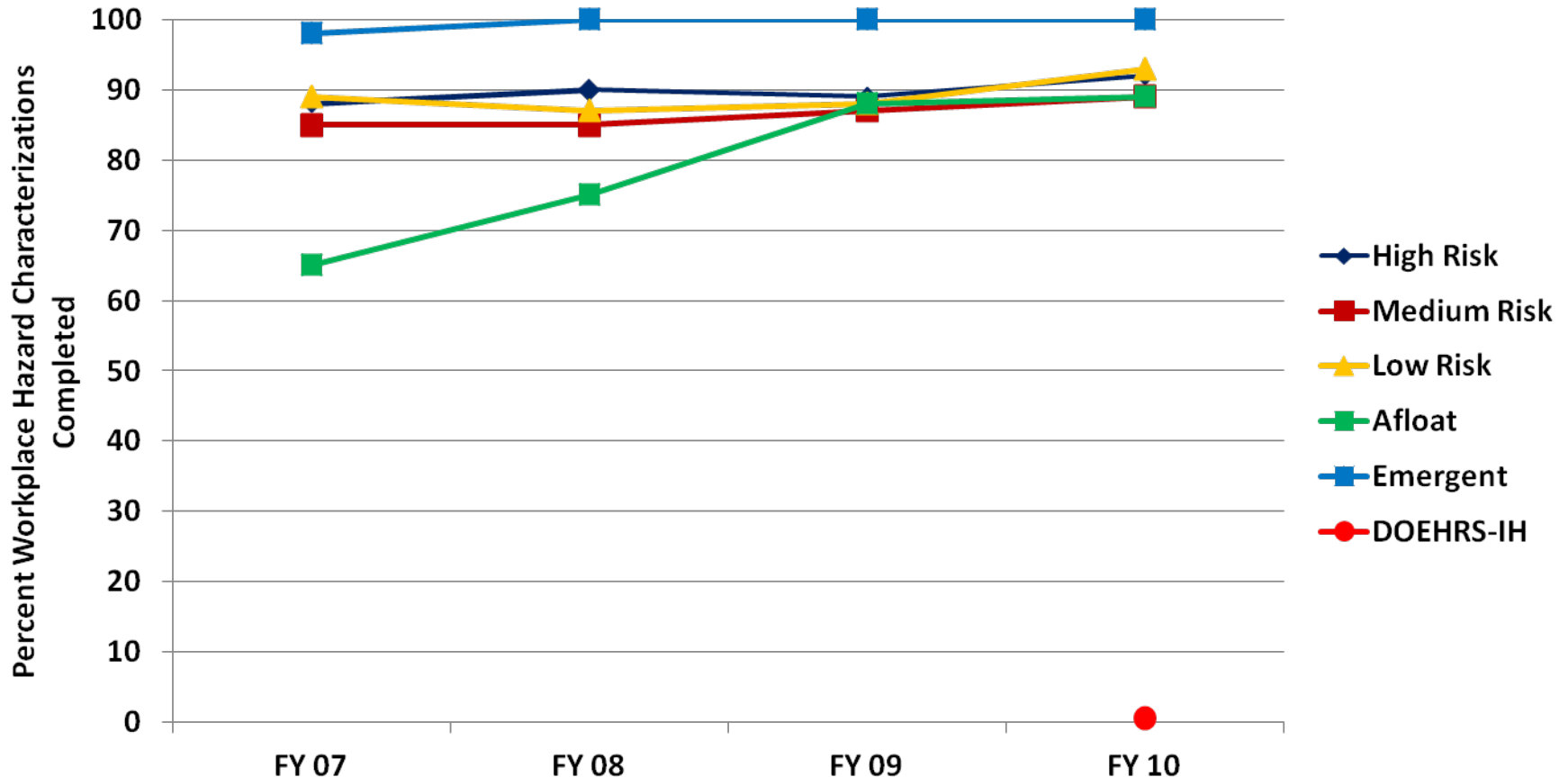
## Workplace Assessment Frequency

- Marine Corps Policy
  - **MCO 5100.29A, Marine Corps Safety Program**, “All workplaces are to be inspected annually by a safety professional, as well as informal, quarterly visits by unit-level collateral duty safety representatives.”
- Safety inspection updates provided quarterly in Warrior Preservation Status Report (WPSR)
- MC HQ staff validates inspections are complete during their oversight compliance reviews



# Risk Assessment

## Workplace Hazard Characterization



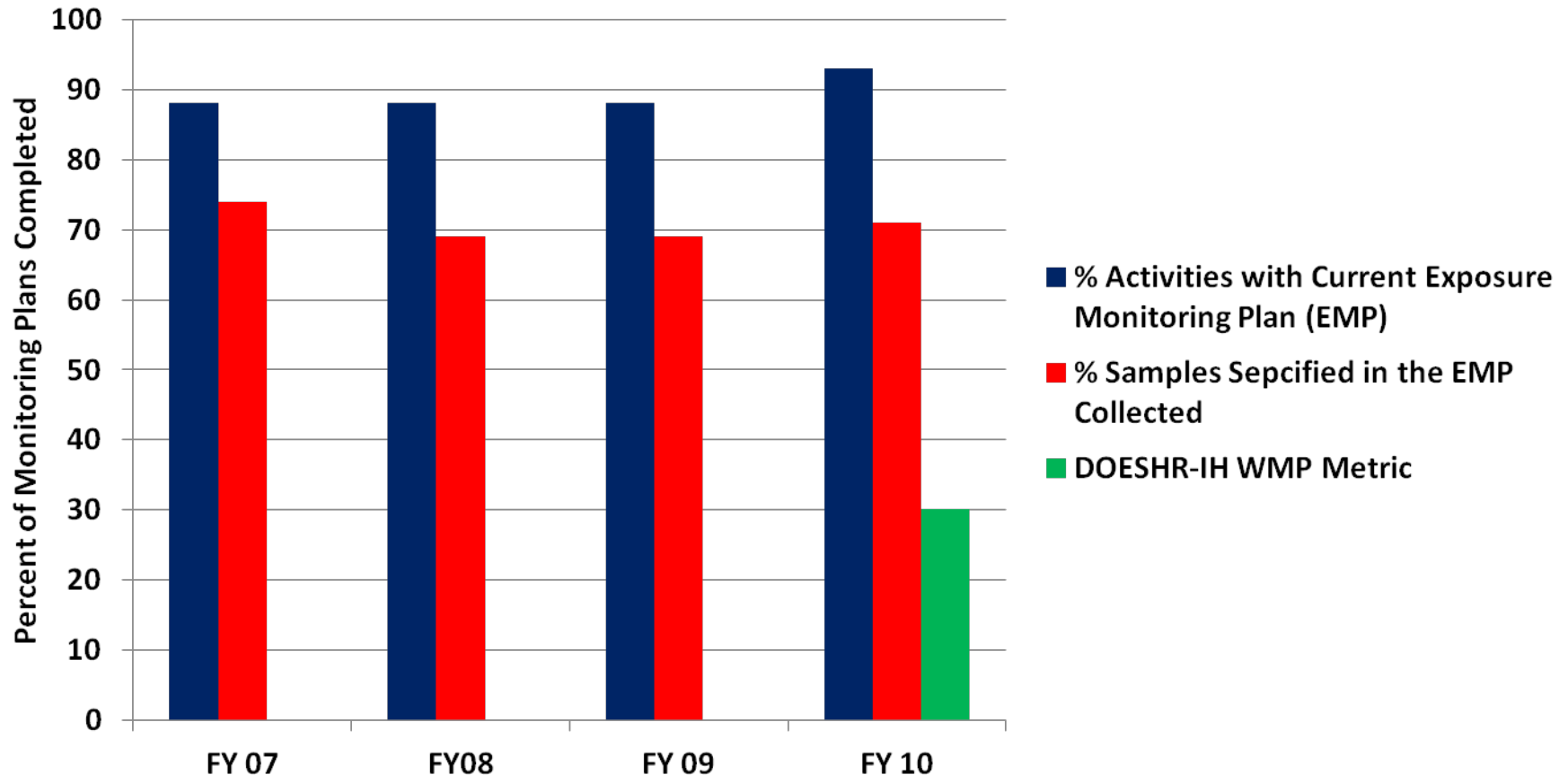
**FY 10 DOEHRS-IH Monitoring Plans Completed Metric\*: 0.5%**

**% Workplace Hazard Characterizations Completed = # Workplaces Assessed x 100% / # Workplaces Requiring Assessment**





# Risk Assessment IH Monitoring Plans



**FY 10 DOEHRS-IH Monitoring Plans Completed Metric\*: 30.8%**

**% Workplace Monitoring Plan (WMP) Closed = # WMP Started & Completed x 100% / Total # of WMP**



# Risk Assessment Medical Surveillance

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- BUMED reported compliance rate at 33%
- Corrective actions are in progress
  - Memo from ASN (E,I&E) to CNO/CMC directing comprehensive medical surveillance program plan
    - 2<sup>nd</sup> Round of Progress Report Briefings Planned, July 2011
  - Navy Executive Safety Board chartered a Medical Surveillance Working Group
  - Marine Corps developed and working implementation plan



# Risk Control

## Safety and Health Hazard Mitigation

	<b>RAC 1 Hazards</b>  (Mitigated or Abated within 10 Days)	<b>RAC 2 Hazards</b>  (Mitigated or Abated within 30 Days)	<b>RAC 3 Hazards</b>  (Mitigated or Abated within 90 Days)
<b>Navy</b>	<b>100%</b>	<b>85%</b>	<b>81%</b>
<b>Marine Corps</b>	<b>100%</b>	<b>73%</b>	<b>75%</b>

Percentage of Safety and Health Hazards Mitigated or Permanently Abated



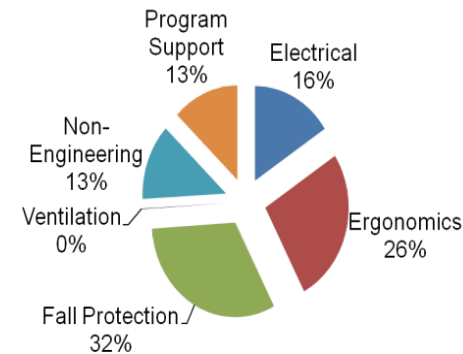
# Risk Control



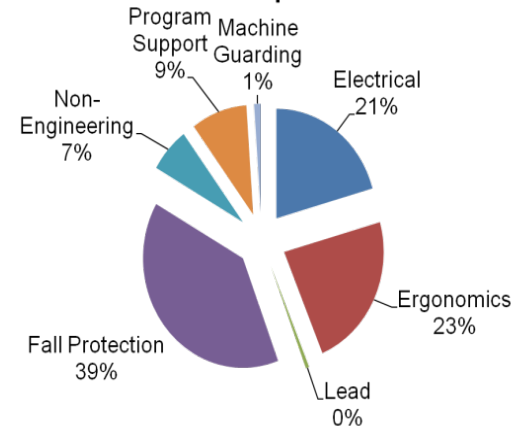
## DoN Navy Hazard Abatement Program

- Naval Facilities Engineering Command centrally manages a dedicated \$9M Hazard Abatement Program that funds mishap prevention strategies, training courses, and the abatement of facility and infrastructure hazards.
- The Hazard Abatement Program seeks to address hazards at multiple activities that can be corrected with common (global) solutions.

MPHA Distribution FY10



MPHA Proposed Distribution FY11





# Mishap Investigations

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## Injury Record Keeping



- Navy and Marine Corps Policies are in place
  - OPNAVINST 5102.1D/ MCO P5102.1B
    - Policies require all organizations to comply with injury recordkeeping requirements, including the posting of OSHA 300A summaries for all personnel
  - OPNAVINST 3750.6R Aviation Mishap Reporting and Investigation Policy
    - Implements DODI 6055.07 for Naval Aviation
- Policy updates set to align with newly released DoDI 6055.07



# **Mishap Investigations**

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## **Injury Reporting Requirements**



- Navy and Marine Corps
  - Organizations with a safety management system:
    - Automate recordkeeping and hazard abatement tracking
    - Manage data robustly and transparently
    - Enable centralized program review and oversight
  - Organizations without a safety management system:
    - Difficult to measure or evaluate compliance
    - Manage data with decreased efficiency and reliability
    - Require data calls and manual data analysis to enable program review and oversight
  - Compliance validated through oversight reviews



# Mishap Investigations

## Integration into System Acquisition

- Navy and Marine Corps
  - Policies in place:
    - MIL-STD-882D, DoD Standard Practice for System Safety
    - DoDI 5000.02, Operation of the Defense Acquisition System
    - SECNAVINST 5000.2D, Implementation and Operation of the Defense Acquisition System and the Joint Capabilities Integration and Development System
    - OPNAVINST 5100.24B, Navy System Safety Program Policy
  - GS-15 Acquisition Safety Professional on DASN (Safety) Staff



# **Mishap Investigations**

## **Integration into System Acquisition**

- Navy and Marine Corps
  - System Safety Working Groups are established early on in the acquisition process and user representatives are included in the membership
  - Navy has an established process by which program manager seeks formal user concurrence in accordance with DoDI 5000.02, Enclosure 12
  - Program offices participate in Class A & B mishap investigations





# **Mishap Investigations**

## **Integration into System Acquisition**

- Acquisition Strategic Safety Objectives for FY11
  - Update SECNAV Safety policy to include acquisition safety requirements
  - Update Safety Management Systems Strategy
  - Audit all high and serious risk acceptance documentation for Acquisition Category 1 (ACAT) and special interest programs
  - Continue partnerships with ASN (RD&A) and DASN (E) on Technical reviews
  - Identify Acquisition Safety curriculum requirements for Safety Professionals



# Mishap Investigations Recommendation Tracking

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## ➤ Navy

- Policy in place to identify, monitor, and track corrective actions, but execution not standardized
- Oversight inspections validate compliance
- Mishap Recommendation (MISREC) Tracking tool at NAVSAFECEN

## ➤ Marine Corps

- Investigation board identified deficiencies, if possible, are immediately abated
- Items unable to be immediately abated are tracked to completion through recurring status reports



# **Distribution of Lessons Learned**

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## **Policies and Procedures**

### ➤ Navy

- Policies in place:
  - OPNAVINST 3750,6R, Naval Aviation Safety Program
  - OPNAVINST 5100.23G, Ashore SOH Program Manual
  - OPNAVINST 5100.19E, Afloat SOH Program Manual
  - DoN Safety Vision
- Examples include:
  - On-line and Naval message hazard reports
  - Preliminary Lesson Learned Reports
  - Success Story and Lessons Learned Websites (NAVFAC, NSC, MSC)
  - Ongoing effort to evaluate incorporation within JLLS



# **Distribution of Lessons Learned**

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## **Policies and Procedures**



### ➤ Marine Corps

- Policy in place:
  - MCO 5100.29A
  - NAVMC DIR 5100.8
  - Safety Division Order 5400.2
- Examples include:
  - Marine Corps Center for Lessons Learned actively shares information on line.
  - 8-Day Reports - General Officer reports for identifying mishap trends and sharing lessons learned
  - Monthly “wrap up” mishap summary report and “Did You Know?” e-newsletter distributed through chain of command



# **Department of Navy Safety Success Stories**



# Success Stories

## Mishap Rate Reduction



NAVY		
Mishap Category	FY 2010 vs. FY 2009	FY 2010 vs. 5-Yr Avg.
Class A Flight Mishaps	-32%	-37%
Class A Afloat Mishaps	-47%	-39%
Class A Shore On-Duty Mishaps	-88%	-78%
PT Fatalities	+79%	+34%
Class A On-Duty MV Mishaps	0%	-100%
Total Class A On-Duty Mishaps	-45%	-40%
On-Duty Fatalities	0%	-14%
Total PMV Fatalities	-8%	-41%
PMV4 Fatalities	+1%	-40%
PMV2 Fatalities	-8%	-40%
Off-Duty/Rec Fatalities	-47%	-52%
Civilian Lost Work Day Rate	0%	-18%
Military Lost Time Case Rate	+2%	-5%

MARINE CORPS		
Mishap Category	FY 2010 vs. FY 2009	FY 2010 vs. 5-Yr Avg.
Class A Flight Mishaps	-4%	-24%
Class A Ground On-Duty Mishaps	+88%	-2%
PT Fatalities	-100%	-100%
Class A On-Duty MV Mishaps	-22%	-51%
Total Class A On-Duty Mishaps	+5%	-32%
On-Duty Fatalities	+52%	-43%
Total PMV Fatalities	-19%	-35%
PMV4 Fatalities	-14%	-28%
PMV2 Fatalities	-40%	-56%
Off-Duty/Rec Fatalities	+12%	+24%
Civilian Lost Work Day Rate	+42%	-4%
Military Lost Time Case Rate	-9%	-12%





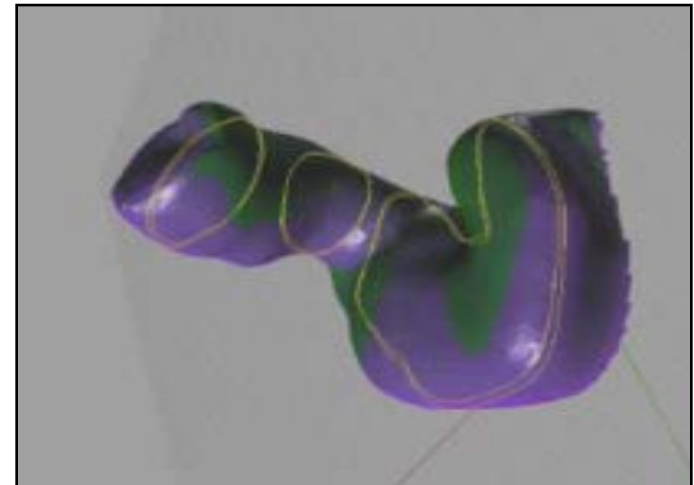
# Success Stories

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## Noise Hazard Reduction



- Naval Sea Systems Command actively involved in shipboard noise reduction
- Updated specifications for major acquisitions
  - Littoral Combat Ship (LCS 3, LCS 4), Joint High Speed Vessel, Ship-to-Shore Connector, and Mobile Landing Platform - published in OPNAVINST 5100.19E
- Airborne noise survey results from LHD 8 utilized to modify ship design and specifications for follow-on large deck AMPHIBs
- Funded exhaust chevron study for F/A-18 Engine - 3% reduction achieved
- Developed a report of shipboard noise control solutions for use by program offices.
- Funded custom-molded ear plugs and redesigned flight deck cranial evals on CVNs and AMPHIBs.





# Success Stories

## Acquisition and Systems Safety



- DON continues review of Joint Requirements/ Capabilities documents and interaction with acquisition program offices, to influence system safety implementation during ship development.
- Funded eval of new shipboard inclined ladder design w/ telescoping handrails.
- Facilitated DoD project that made U.S. manufactured, ISO 10819 certified anti-vibration gloves available in the federal supply system, and introduced three low-vibration power hand tools via General Services Administration.
- Continued to use the System Safety Advisory Board (SSAB) as a forum for Navy review of systems engineering and risk management approaches.
- Established Navy Acquisition Safety website <http://www.public.navy.mil/navsafecen/Pages/acquisition/acquisition.aspx>







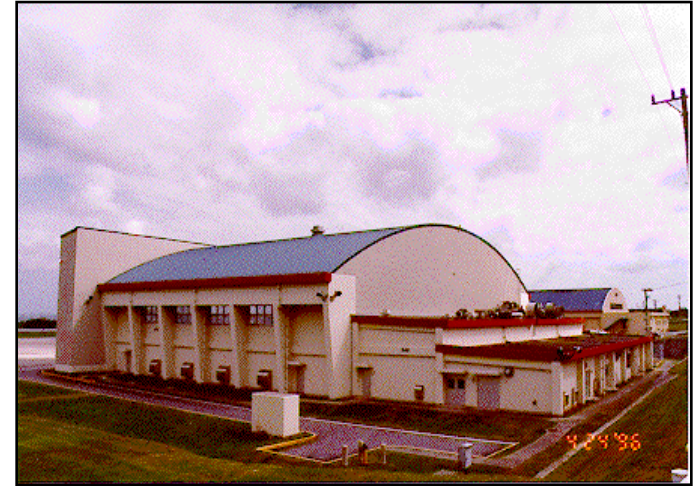
# Success Stories

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## Energy, Safety and Health



- Naval Engineering Facilities Command's Engineering Service Center and Bureau of Medicine and Surgery industrial hygienists completed the first phase of a study in partnership with the National Institute for Occupational Safety and Health (NIOSH) to analyze reduction of airflow in fixed wing aircraft paint hangars that will maintain worker safety and health.
- Work was conducted under the Navy's Environmental Sustainability Development to Integration Program. Finding the correct optimal airflow rate will save over \$1M annually in energy cost avoidance.





# Success Stories

## Data Management System



- Enterprise Safety Applications Management System (ESAMS) user population continues steady growth.
- In FY10, NAVFAC included a contractor mishap module to improve their mishap reporting, recording and recordkeeping for contractor personnel
- NETC included their boot camp personnel.
- Several new functionalities and enhancements were added this past year (e.g., process for validating/sending mishap reports to WESS, trend reports)
- Enables safety management system data management, program compliance, and centralized oversight





# Success Stories

## Voluntary Protection Program (VPP)

17 DoN VPP DESIGNATED STAR COMMANDS	
NAVFAC Northwest, WA	VPP Star May 2011
NSWC CD SSES Philadelphia, PA	VPP Star May 2011
Naval Health Clinic Kingsville, TX	VPP Star March 2011
Naval Station Everett (NSE), WA	VPP Star October 2010
Naval Air Station Jacksonville, FL	VPP Star July 2010
Naval Station Mayport, FL	VPP Star Sept 2009
Naval Weapon Station Charleston, SC	VPP Star Sept 2009
Naval Air Station Key West , FL	VPP Star June 2008
Naval Submarine Base Kings Bay, GA	VPP Star Apr 2007
Naval Station Everett, WA	VPP Star Aug 2010
Naval Health Clinic Corpus Christi, TX	VPP Star Feb 2009
Southeast Regional Maintenance Center (SERMC), Mayport, FL	VPP Star Aug 2010
Portsmouth Naval Shipyard, Portsmouth, NH	VPP Star 2005 and Recertified 2008
Puget Sound Naval Shipyard & Intermediate Maintenance Facility (IMF) Bremerton, WA	VPP Star 2006 and Recertified 2009
Norfolk Naval Shipyard, Norfolk, VA	VPP Star 2006 and Recertified 2009
Pearl Harbor Naval Shipyard and IMF, Pearl Harbor, HI	VPP Star 2007



# Success Stories

## Progress Towards VPP “Star” Status

Name	Chain of Command	Current % Complete
Naval Surface Warfare Center Indian Head, MD	NAVSEA	100%
Naval Weapons Station Seal Beach, CA	CNIC	96%
Naval Undersea Warfare Center Keyport, WA	NAVSEA	84%
Joint Expeditionary Base Little Creek/Fort Story, Virginia Beach, VA	CNIC	82%
Naval Submarine Support Facility, New London, CT	USFF	80%
Fleet Readiness Center East Cherry Point, NC	NAVAIR	74%
Naval Air Station Whidbey Island, WA	CNIC	74%
Naval Explosives Ordnance Technical Division, Stump Neck, MD	NAVSEA	71%
Command Navy Region Northwest, Bangor, Washington	CNIC	69%
Naval Hospital Yokosuka-Japan	BUMED	66%
Naval Air Station Oceana, Virginia Beach, VA	CNIC	64%
Naval Undersea Warfare Center Division Newport, RI	NAVSEA	62%
Ship Repair Facility-Japan Regional Maintenance Center Sasebo, Japan	COMPACFLT	59%
Ship Repair Facility-Japan Regional Maintenance Center Yokosuka, Japan	COMPACFLT	51%
Naval Surface Warfare Center Port Hueneme, CA	NAVSEA	49%

Name	Chain of Command	Current % Complete
Naval Air Station Joint Reserve Base Ft Worth, TX	CNIC	44%
Naval Magazine Indian Island, WA	CNIC	42%
Naval Air Station Patuxent River, MD	CNIC	41%
Naval Air Station Lemoore, CA	CNIC	37%
Naval Surface Warfare Center Carderock, MD	NAVSEA	33%
Navy Support Activity Panama City, FL	CNIC	30%
Naval Base Pearl Harbor, HI	CNIC	28%
Naval Station San Diego, CA	CNIC	26%
Naval Air Station Corpus Christi, TX	CNIC	26%
Naval Surface Warfare Center Crane, IN	NAVSEA	25%
Naval Communication Detachment, Cutler, ME	USFF	24%
Southwest Regional Maintenance Center San Diego, CA	NAVSEA	24%
Naval Air Station North Island, Coronado, CA	CNIC	23%
Naval Support Activity, Crane, IN	CNIC	21%
Naval Surface Warfare Center, Panama City, FL	NAVSEA	21%
Naval Surface Warfare Center, Corona, CA	NAVSEA	19%
Naval Hospital Camp Lejeune, NC	BUMED	17%
Naval Surface Warfare Center Dahlgren, VA	NAVSEA	16%
Naval Surface Warfare Center Dam Neck, VA	NAVSEA	14%



# Success Stories

## Safety Professional Certification



Agency	Certified Safety Professionals
Department of Energy	182
Department of Labor (OSHA)	160
<b>Department of the Navy</b>	<b>73</b>
Department of the Army	57
National Aeronautics & Space Administration	30
United States Air Force	26
HHS/CDC/National Institute for Occupational Safety & Health	20
Department of Defense	14
Federal Aviation Administration	13
U.S. Department of Veterans Affairs	13
United States Coast Guard	10





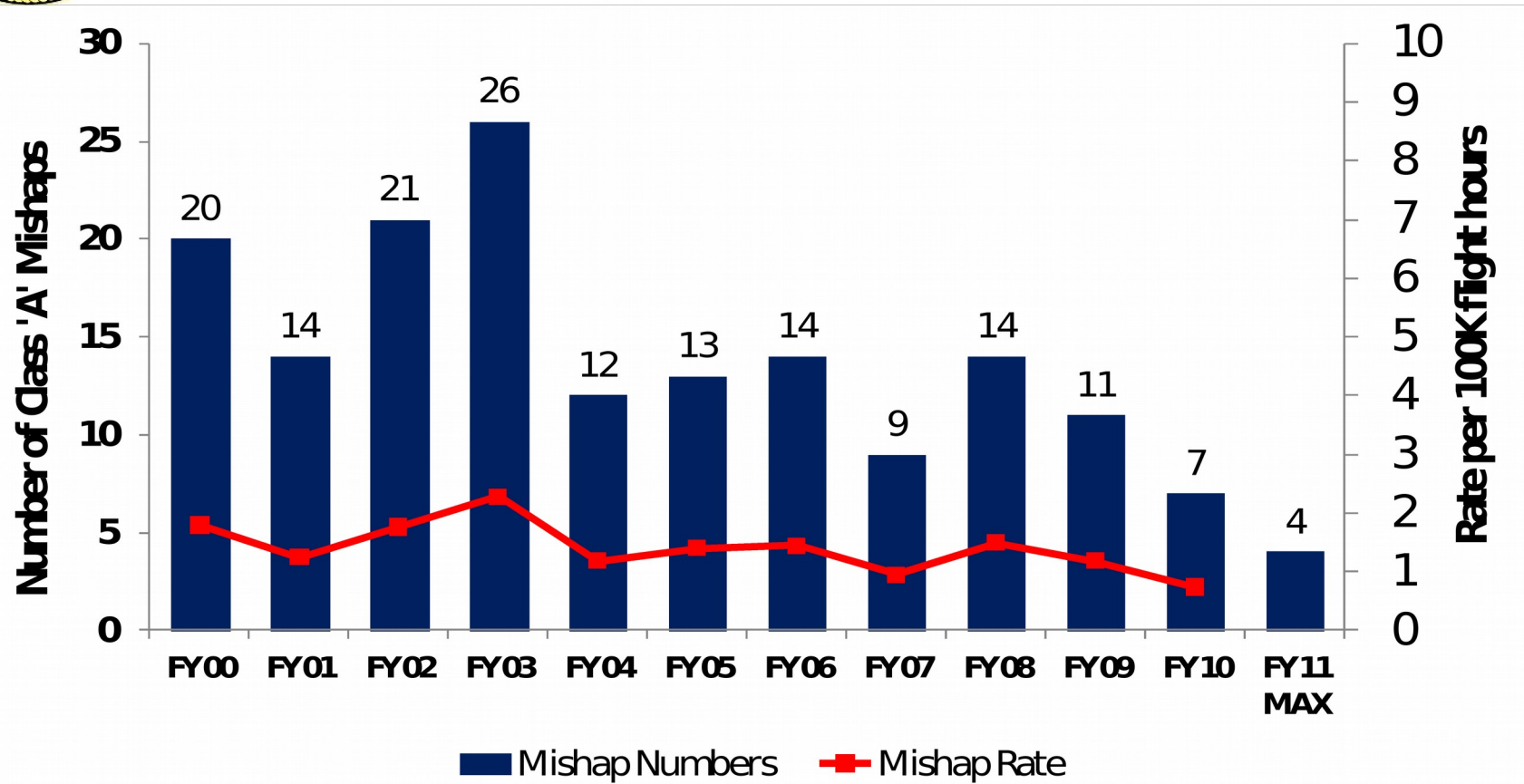
# **Attachment 2**

## **Backup Data**



# Aviation Class 'A' Mishap Rates

## U.S. Navy



	30 September 2010	30 September 2009
Class A Mishaps / Mishap Rate	7 / 0.74	11 / 1.18

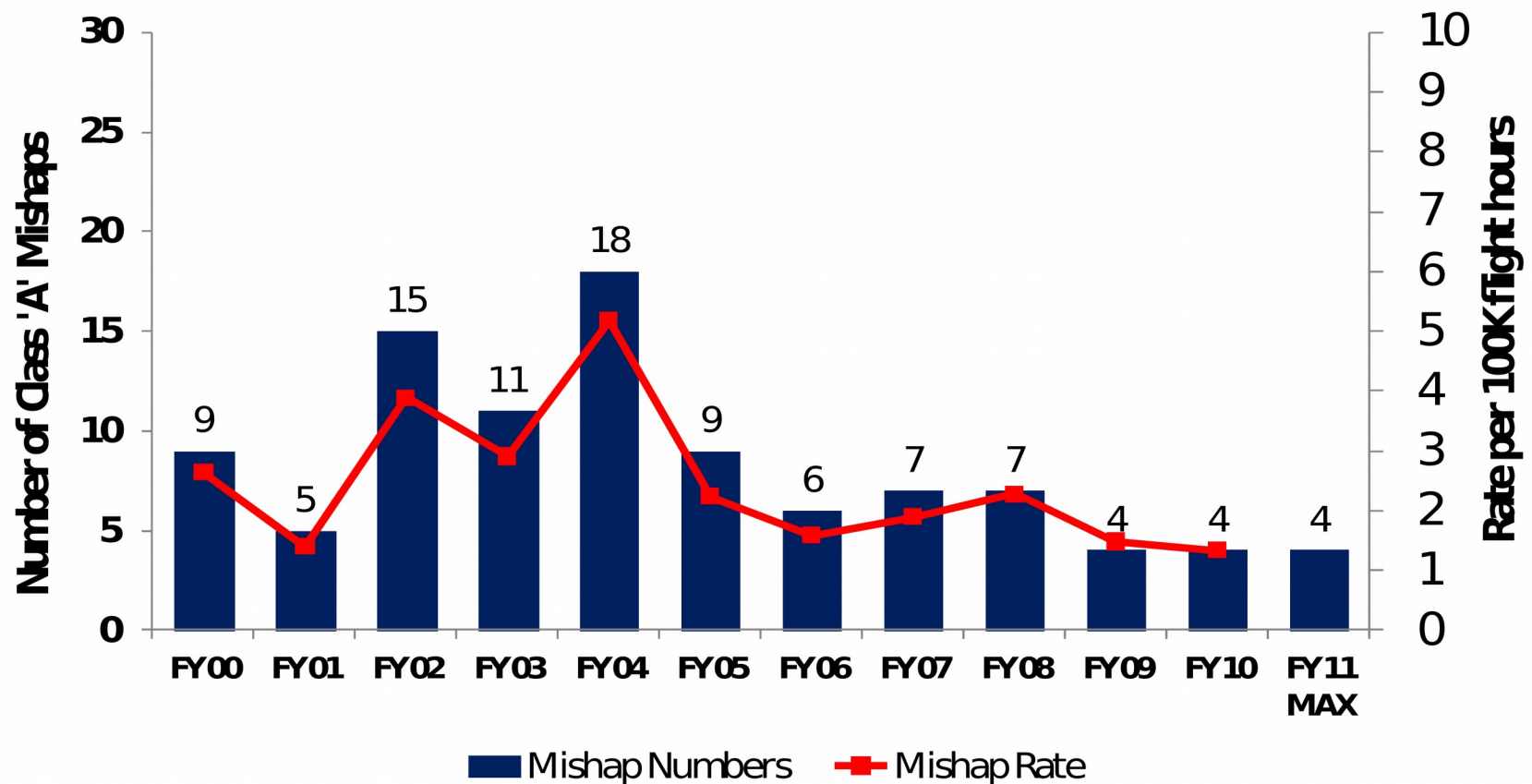
**10-Year Average (FY00-FY09) Mishaps / Mishap Rate: 15.4 / 1.50**

Source: Defense Safety Enterprise System (DSES).



# Aviation Class 'A' Mishap Rates

## U.S. Marine Corps



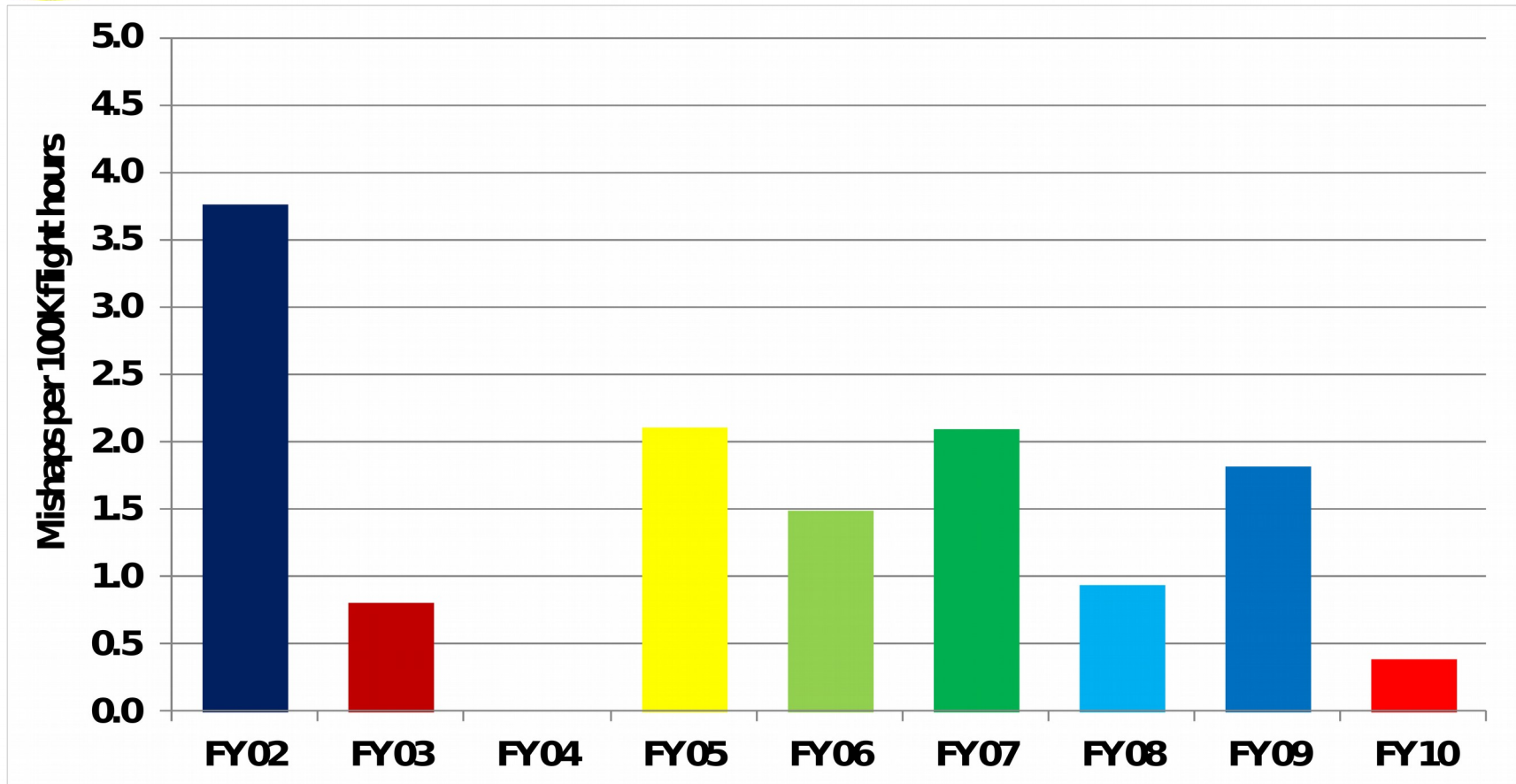
	30 September 2010	30 September 2009
Class A Mishaps / Mishap Rate	4 / 1.34	4 / 1.48
10-Year Average (FY00-FY09) Mishaps / Mishap Rate: 9.1 / 2.58		





# Aviation Class 'A' Mishap Rates

## U.S. Navy - Rotary Wing

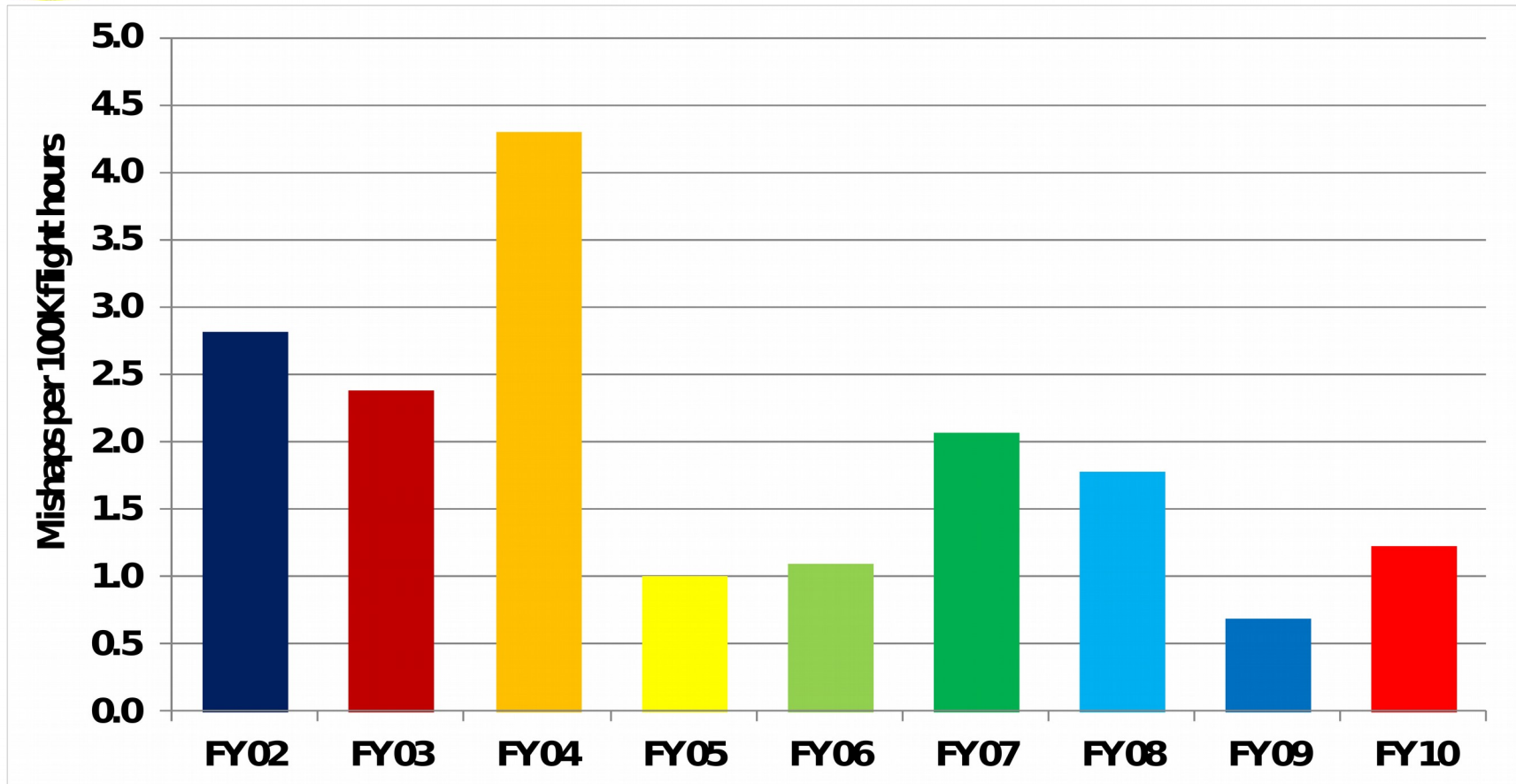


Baseline FY 2002	3.76
FY 2010	0.39
Reduction from Baseline	90%



# Aviation Class 'A' Mishap Rates

## U.S. Marine Corps - Rotary Wing

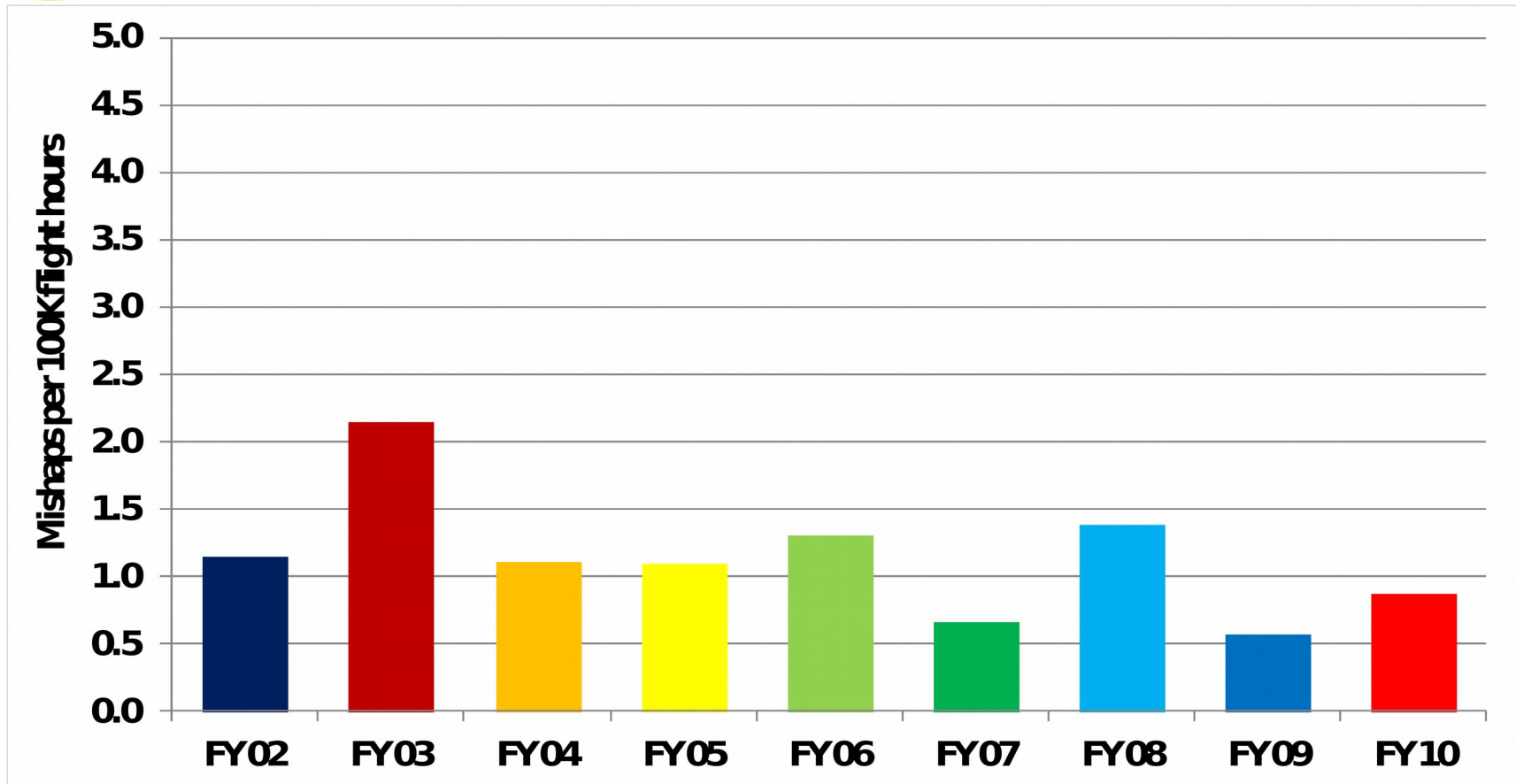


Baseline FY 2002	2.82
FY 2010	1.22
Reduction from Baseline	57%



# Aviation Class 'A' Mishap Rates

## U.S. Navy - Fixed Wing

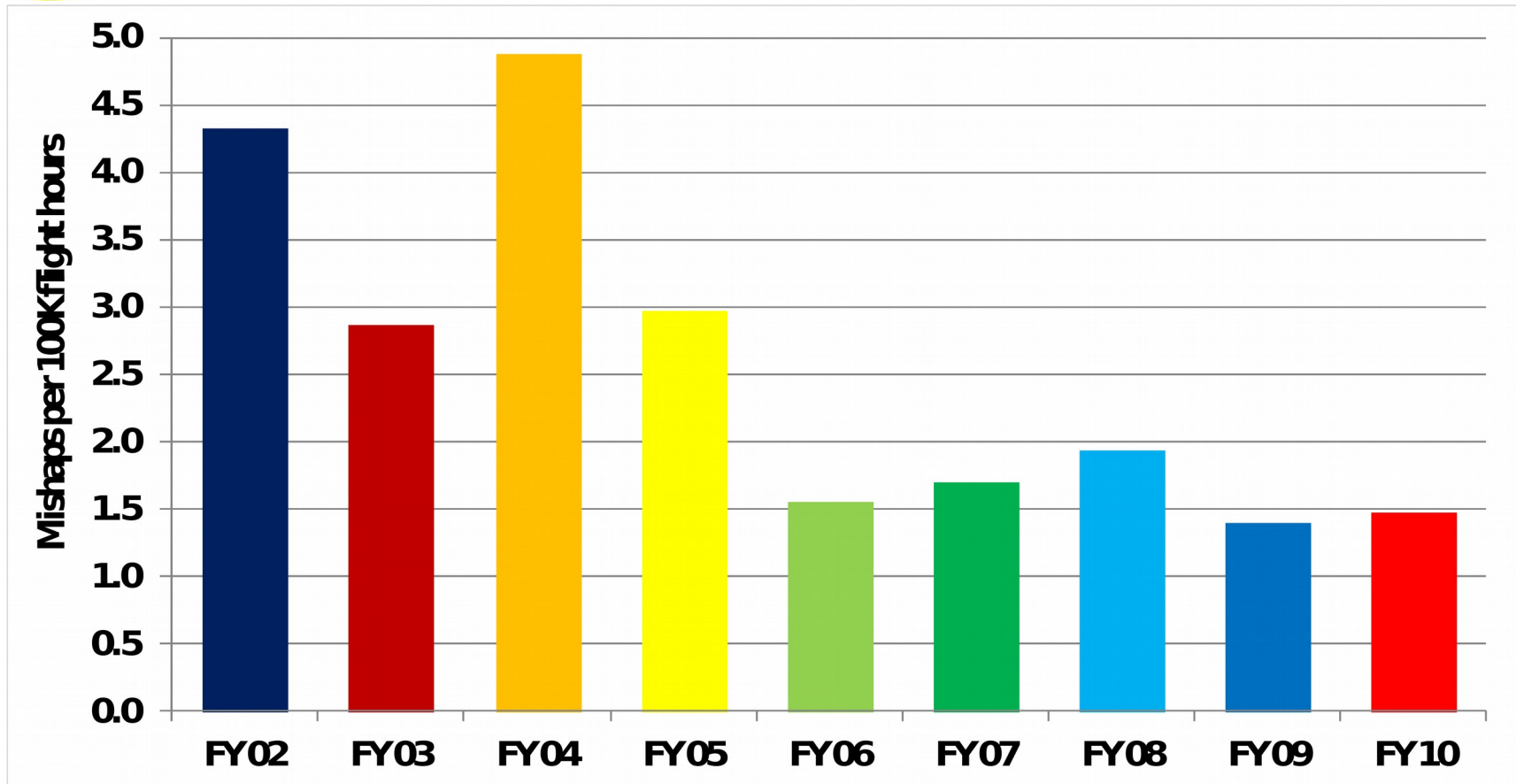


Baseline FY 2002	1.15
FY 2010	0.67
Reduction from Baseline	24%



# Aviation Class 'A' Mishap Rates

## U.S. Marine Corps - Fixed Wing



Baseline FY 2002	4.32
FY 2010	1.47
Reduction from Baseline	66%



# **Military Mishap Fatality Rate**

## **U.S. Navy**



<b>Fiscal Year</b>	<b>Number</b>	<b>Rate*</b>
<b>On-duty Navy Fatalities</b>		
<b>2006</b>	<b>23</b>	<b>5.92</b>
<b>2007</b>	<b>22</b>	<b>5.87</b>
<b>2008</b>	<b>17</b>	<b>4.67</b>
<b>2009</b>	<b>16</b>	<b>4.60</b>
<b>2010</b>	<b>15</b>	<b>4.32</b>
<b>5 - Year Total</b>	<b>93</b>	<b>5.10</b>
<b>Off-duty Navy Fatalities</b>		
<b>2006</b>	<b>94</b>	<b>24.20</b>
<b>2007</b>	<b>66</b>	<b>17.60</b>
<b>2008</b>	<b>88</b>	<b>24.16</b>
<b>2009</b>	<b>49</b>	<b>14.08</b>
<b>2010</b>	<b>39</b>	<b>11.23</b>
<b>5 - Year Total</b>	<b>336</b>	<b>18.43</b>
<b>All Navy Fatalities</b>		
<b>2006</b>	<b>117</b>	<b>30.12</b>
<b>2007</b>	<b>88</b>	<b>23.47</b>
<b>2008</b>	<b>105</b>	<b>28.83</b>
<b>2009</b>	<b>65</b>	<b>18.67</b>
<b>2010</b>	<b>54</b>	<b>15.55</b>
<b>5 - Year Total</b>	<b>429</b>	<b>23.53</b>

**\*Note:** Rate is per 100,000 personnel per year



# **Military Mishap Fatality Rate**

## **U.S. Marine Corps**



<b>Fiscal Year</b>	<b>Number</b>	<b>Rate*</b>
<b>On-duty Marine Fatalities</b>		
<b>2006</b>	<b>51</b>	<b>26.33</b>
<b>2007</b>	<b>28</b>	<b>14.46</b>
<b>2008</b>	<b>11</b>	<b>5.65</b>
<b>2009</b>	<b>13</b>	<b>6.15</b>
<b>2010</b>	<b>19</b>	<b>8.76</b>
<b>5 - Year Total</b>	<b>122</b>	<b>12.07</b>
<b>Off-duty Marine Fatalities</b>		
<b>2006</b>	<b>76</b>	<b>39.23</b>
<b>2007</b>	<b>71</b>	<b>36.68</b>
<b>2008</b>	<b>61</b>	<b>31.33</b>
<b>2009</b>	<b>59</b>	<b>27.89</b>
<b>2010</b>	<b>54</b>	<b>24.90</b>
<b>5 - Year Total</b>	<b>321</b>	<b>31.77</b>
<b>All Marine Fatalities</b>		
<b>2006</b>	<b>127</b>	<b>65.56</b>
<b>2007</b>	<b>99</b>	<b>51.14</b>
<b>2008</b>	<b>72</b>	<b>36.98</b>
<b>2009</b>	<b>72</b>	<b>34.04</b>
<b>2010</b>	<b>73</b>	<b>33.66</b>
<b>5 - Year Total</b>	<b>443</b>	<b>43.84</b>

**\*Note:** Rate is per 100,000 personnel per year





# Injury and Illness Rates

## U.S. Navy - (DART)



Days Away, Restricted, or Transferred (DART)					
FY	2006	2007	2008	2009	2010
Civilian DART Cases	1205	1320	1527	1657	1800
Military DART Cases	2197	2131	1791	2331	2446
Total DART Cases	3402	3451	3318	3988	4246
Civilian DART Case Rate*	0.760	0.838	0.938	0.975	1.015
Military DART Case Rate*	0.566	0.568	0.492	0.670	0.705
Total DART Case Rate*	0.622	0.648	0.629	0.770	0.810
Reference Populations					
Civilians	158534	157439	162846	169894	177256
Military	388443	374981	364265	348083	347165
Total	546977	532420	527111	517977	524421

\*Note: Rate is per 100,000 personnel per year



# Injury and Illness Rates

## U.S. Marine Corps - (DART)



Days Away, Restricted, or Transferred (DART)					
FY	2006	2007	2008	2009	2010
Civilian DART Cases	307	291	353	388	361
Military DART Cases	874	933	990	1186	1183
Total DART Cases	1181	1224	1343	1574	1544
Civilian DART Case Rate*	1.992	1.845	2.056	2.029	1.780
Military DART Case Rate*	0.451	0.482	0.508	0.561	0.545
Total DART Case Rate*	0.565	0.585	0.634	0.682	0.651
Reference Populations					
Civilians	15410	15773	17171	19119	20277
Military	193717	193574	194699	211530	216886
Total	209127	209347	211870	230649	237163

\*Note: Rate is per 100,000 personnel per year





# Injury and Illness Rates

## U.S. Navy - (TCIR)



Total Case Incident Rate (TCIR)					
FY	2006	2007	2008	2009	2010
Civilian TCIR Cases	1660	1832	2325	2481	2612
Military TCIR Cases	3133	2965	2477	3195	3485
Total TCIR Cases	4793	4797	4802	5676	6097
Civilian TCIR Case Rate*	1.047	1.164	1.428	1.460	1.474
Military TCIR Case Rate*	0.807	0.791	0.680	0.918	1.004
Total TCIR Case Rate*	0.876	0.901	0.911	1.096	1.163
Reference Populations					
Civilians	158534	157439	162846	169894	177256
Military	388443	374981	364265	348083	347165
Total	546977	532420	527111	517977	524421

\*Note: Rate is per 100,000 personnel per year



# **Injury and Illness Rates**

## **U.S. Marine Corps - (TCIR)**



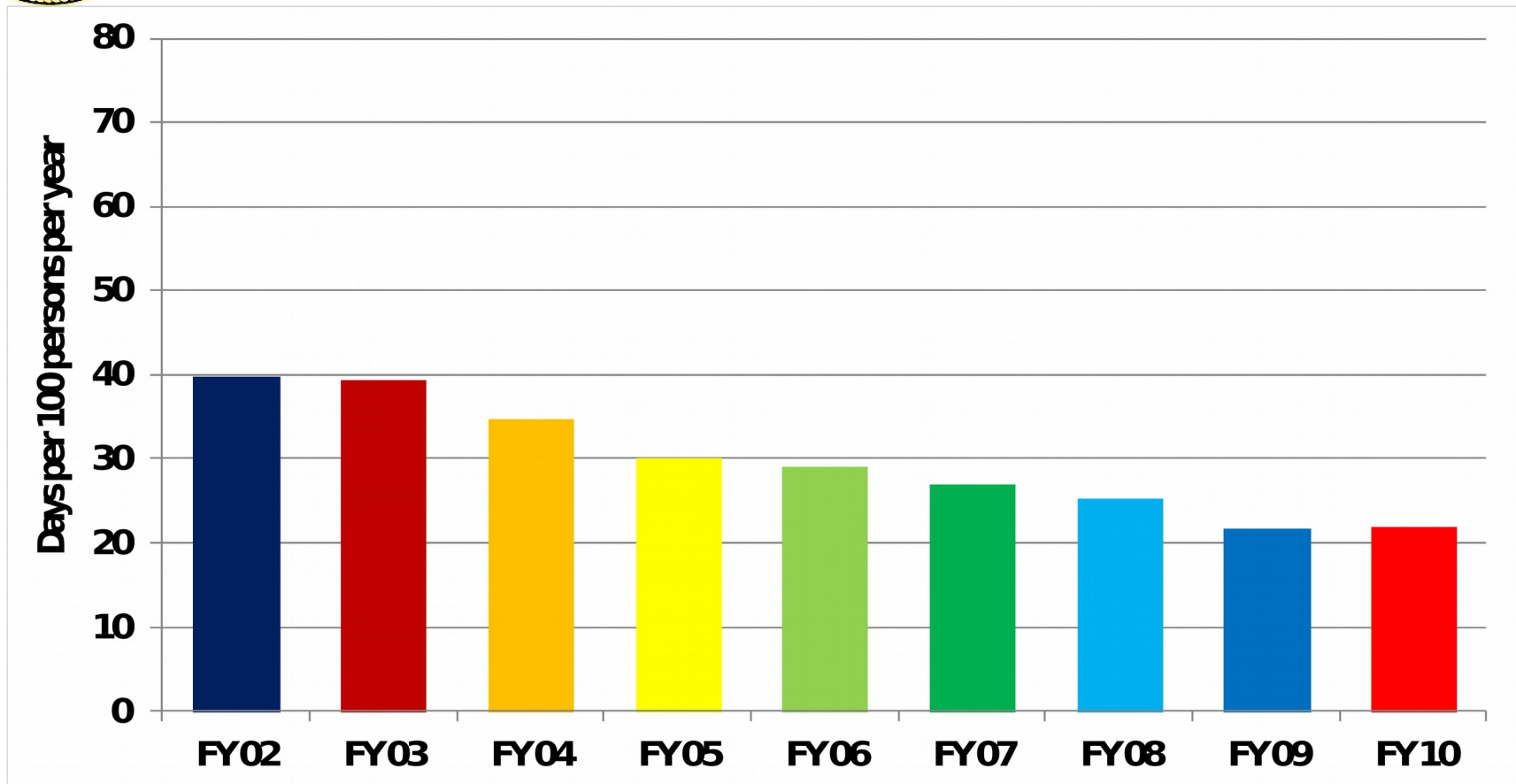
<b>Total Case Incident Rate (TCIR)</b>					
<b>FY</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>
<b>Civilian TCIR Cases</b>	<b>437</b>	<b>350</b>	<b>400</b>	<b>512</b>	<b>461</b>
<b>Military TCIR Cases</b>	<b>1014</b>	<b>1051</b>	<b>1165</b>	<b>1368</b>	<b>1334</b>
<b>Total TCIR Cases</b>	<b>1451</b>	<b>1401</b>	<b>1565</b>	<b>1880</b>	<b>1795</b>
<b>Civilian TCIR Case Rate</b>	<b>2.836</b>	<b>2.219</b>	<b>2.330</b>	<b>2.678</b>	<b>2.274</b>
<b>Military TCIR Case Rate</b>	<b>0.523</b>	<b>0.543</b>	<b>0.598</b>	<b>0.647</b>	<b>0.615</b>
<b>Total TCIR Case Rate</b>	<b>0.694</b>	<b>0.669</b>	<b>0.739</b>	<b>0.815</b>	<b>0.757</b>
<b>Reference Populations</b>					
<b>Civilians</b>	<b>15410</b>	<b>15773</b>	<b>17171</b>	<b>19119</b>	<b>20277</b>
<b>Military</b>	<b>193717</b>	<b>193574</b>	<b>194699</b>	<b>211530</b>	<b>216886</b>
<b>Total</b>	<b>209127</b>	<b>209347</b>	<b>211870</b>	<b>230649</b>	<b>237163</b>

**\*Note:** Rate is per 100,000 personnel per year



# Injury and Illness Rates

## U.S. Navy - Civilian LWR

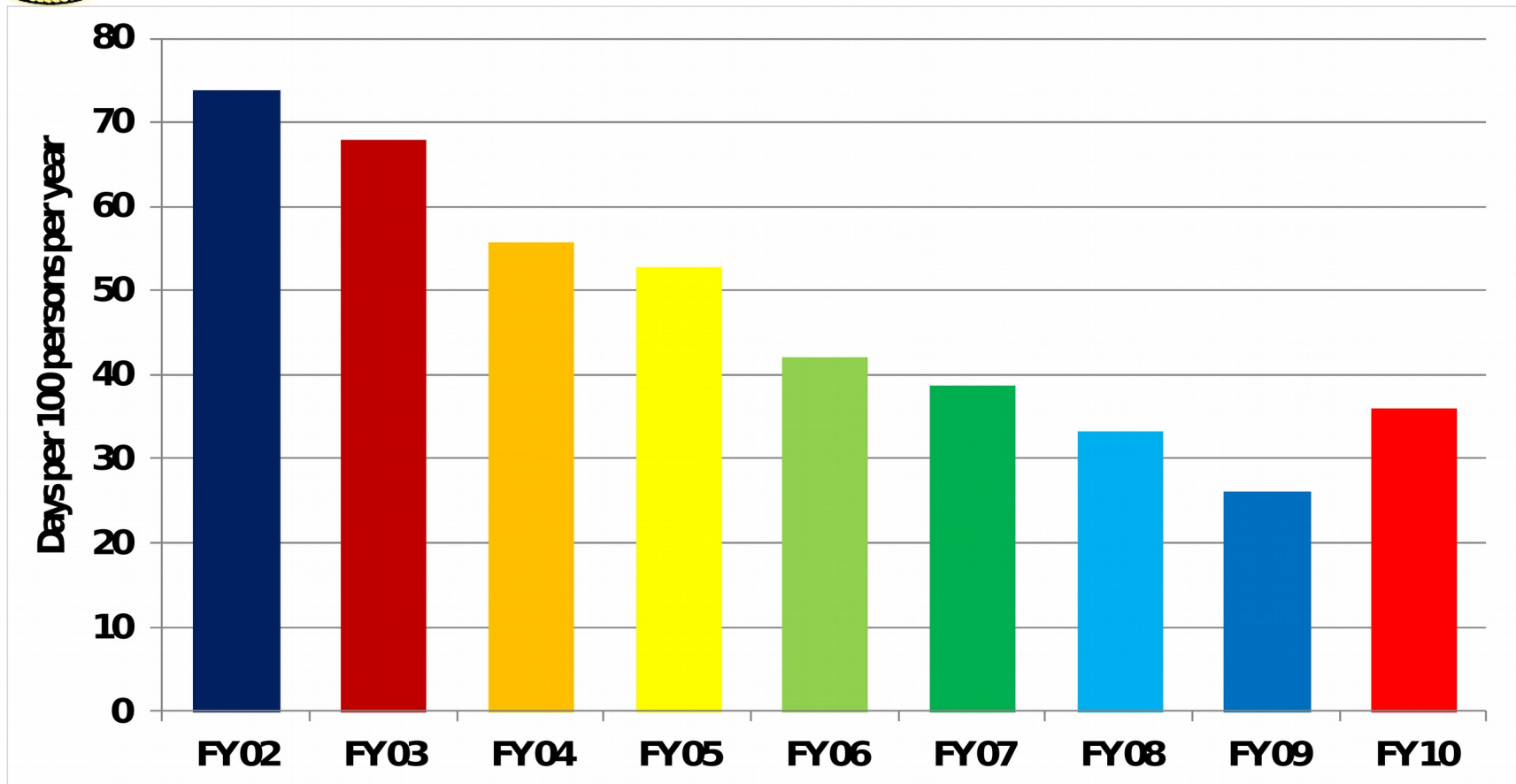


Baseline FY 2002	39.8
FY 2010	21.8
Reduction from Baseline	45%



# Injury and Illness Rates

## U.S. Marine Corps - Civilian LWR



Baseline FY 2002	73.8
FY 2010	36.0
Reduction from Baseline	51%



# Injury and Illness Rates

## 09 & FY10 Federal Agency Ranking

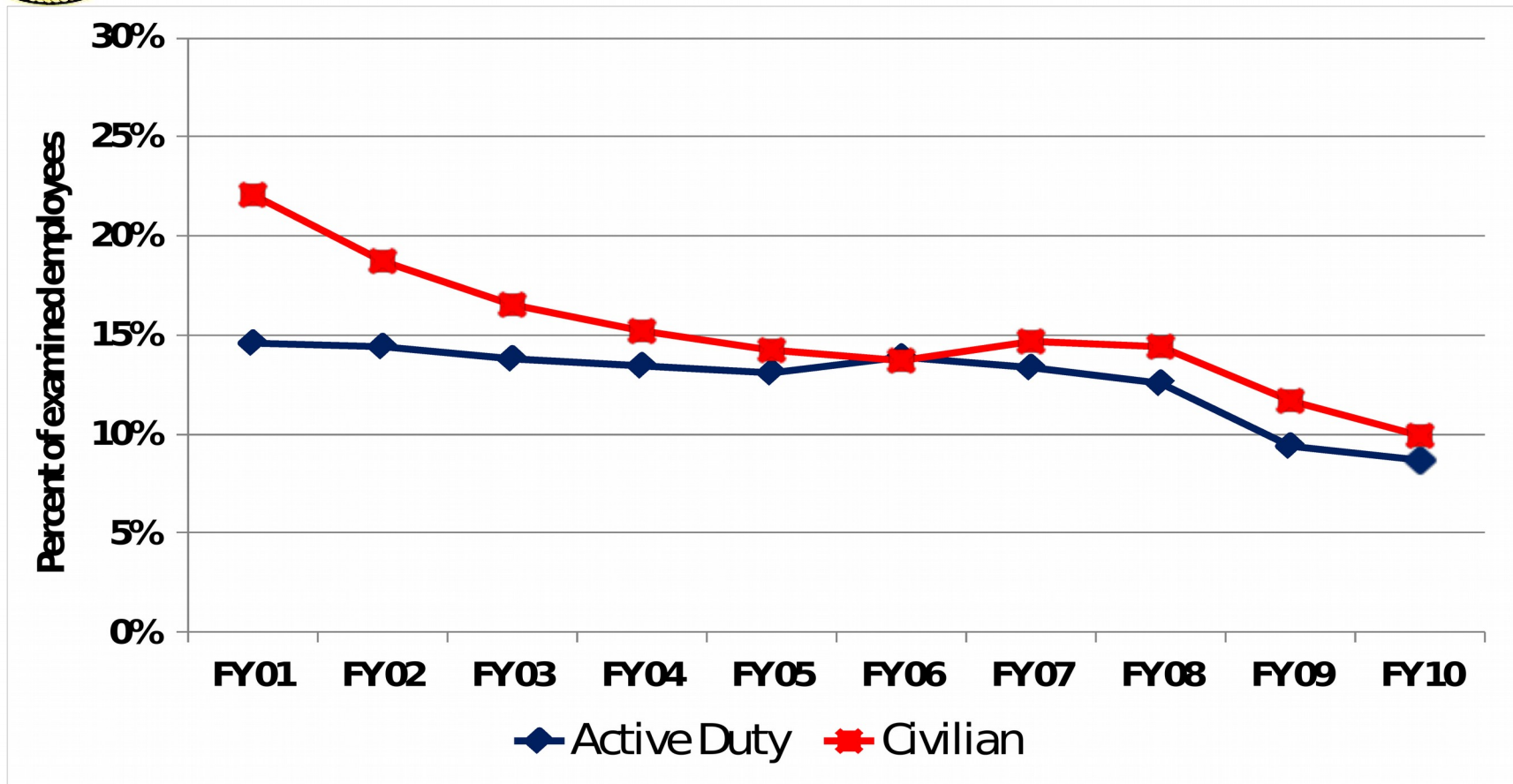
Department or Agency	Lost Time Cases		Lost Time Case Rates*	
	FY 09	FY 10	FY 09	FY 10
National Aeronautical and Space Administration	32	37	0.17	0.20
Environmental Protection Agency	53	63	0.29	0.37
Department of Housing and Urban Development	39	44	0.41	0.45
Department of Energy	103	89	0.67	0.53
Emergency Preparedness and Response (FEMA)	131	97	0.78	0.59
General Services Administration	83	80	0.69	0.62
Department of Education	26	24	0.63	0.55
Department of Treasury	786	790	0.73	0.68
Department of Health and Human Services	472	551	0.73	0.64
Social Security Administration	523	515	0.82	0.74
Department of Labor	141	149	0.87	0.90
Department of Transportation	545	547	0.98	0.95
Department of Agriculture	1,705	1,583	1.85	1.41
Department of State	191	171	0.52	1.43
Bureau of Immigration and Customs Enforcement	290	283	1.48	1.44
<b>Department of the Navy</b>	<b>2,633</b>	<b>2,668</b>	<b>1.44</b>	<b>1.37</b>
Department of Defense	10,359	10,674	1.48	1.51
Department of the Air Force	2,313	2,447	1.49	1.43
Department of the Army (including Corps of Engineers)	4,142	4,157	1.56	1.44
Defense Logistics Agency	347	417	1.52	1.62
Federal Government (includes Executive, Legislative, and Judicial Branches and Postal Service)	45,281	47,226	1.64	1.70

1. Reference: U.S. Department of Labor, Occupational Safety and Health Administration, *Federal Injury and Illness Statistics For Fiscal Year 2009*  
[http://www.osha.gov/dep/fap/statistics/fedprgms\\_stats09\\_final.html](http://www.osha.gov/dep/fap/statistics/fedprgms_stats09_final.html)

2. Reference: U.S. Department of Labor, Occupational Safety and Health Administration, *Federal Injury and Illness Statistics For Fiscal Year 2010*  
[http://osha.gov/dep/fap/statistics/fedprgms\\_stats10\\_final.html](http://osha.gov/dep/fap/statistics/fedprgms_stats10_final.html)



# Permanent Threshold Shift U.S. Navy

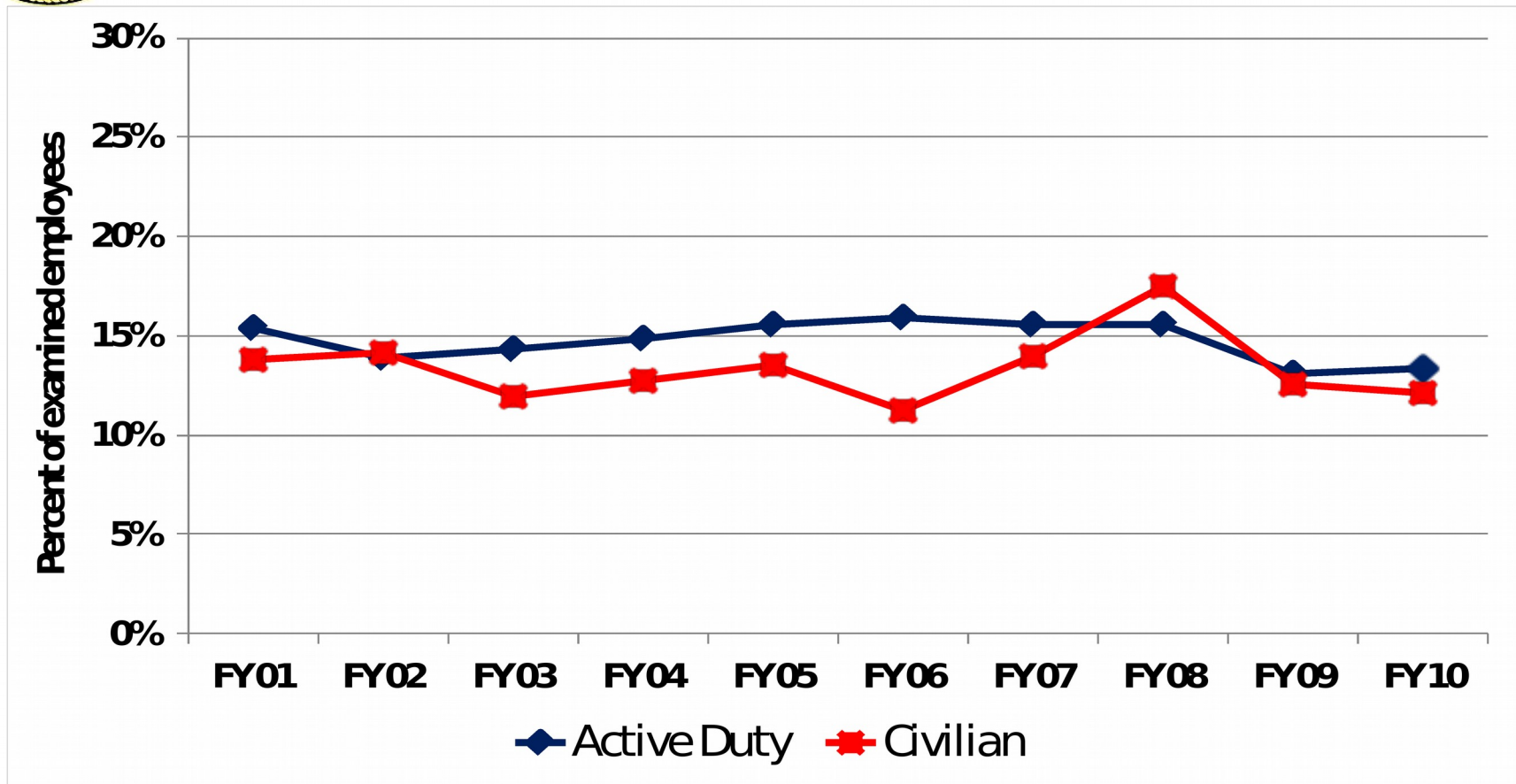


• Data source: Defense Occupational and Environmental Health Readiness System – Hearing Conservation (DOEHRS-HC)  
• Data Caveat: Results derived from numerator data (exams performed) and not denominator data (total enrolled)





# Permanent Threshold Shift U.S. Marine Corps

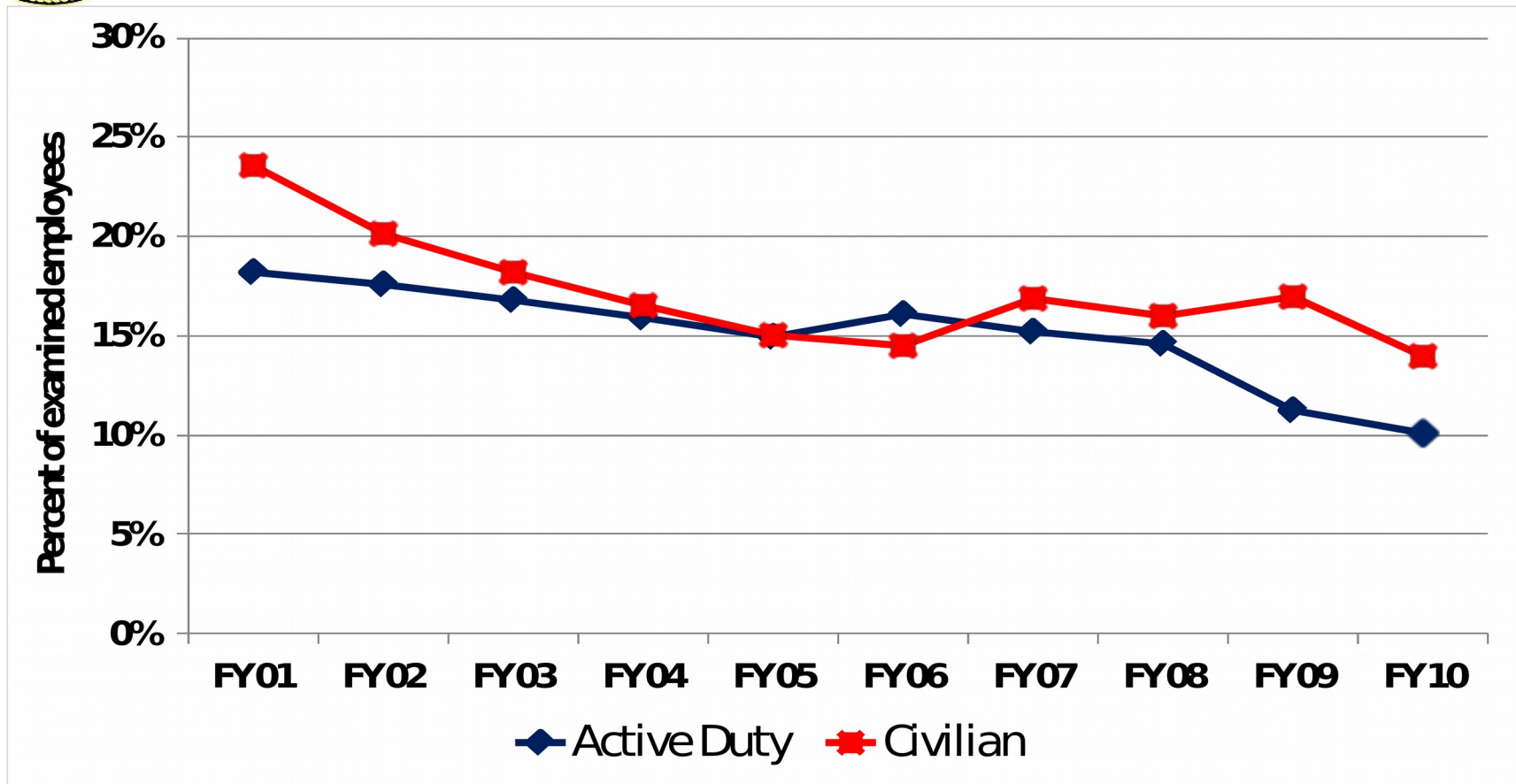


•Data source: Defense Occupational and Environmental Health Readiness System – Hearing Conservation (DOEHRS-HC)  
•Data Caveat: Results derived from numerator data (exams performed) and not denominator data (total enrolled)



# Significant Threshold Shift

## U.S. Navy

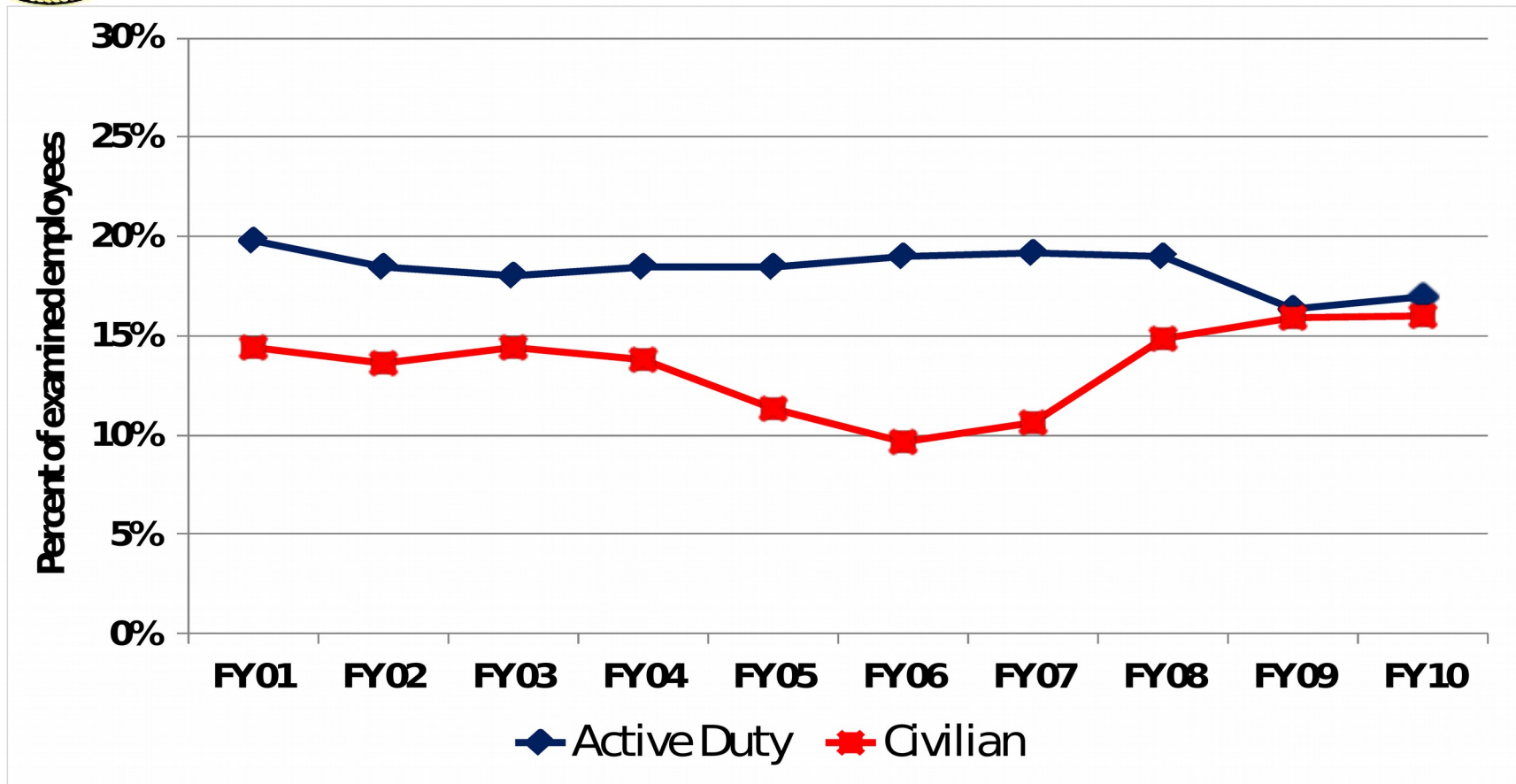


•Data source: Defense Occupational and Environmental Health Readiness System – Hearing Conservation (DOEHRS-HC)  
•Data Caveat: Results derived from numerator data (exams performed) and not denominator data (total enrolled)



# Significant Threshold Shift

## U.S. Marine Corps



◆ Active Duty    ■ Civilian